

15. (New) A method for the determination of prosthetic infections in which at least one *Staphylococcus* strain is involved, which method comprises detecting from blood samples or other biological fluid samples antibodies reacting with a polysaccharide obtained by the following steps:

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- (a) culturing a virulent staphylococcal strain in modified HHW medium for a period of 4-6 days;
  - (b) homogenizing the bacterial cells in a physiological buffer;
  - (c) centrifugating at 13,000 x g for 15 minutes and separating the supernatants;
  - (d) desalting by dialysis the supernatant using membranes with a cut-off of 12 kDa;
  - (e) freezing and lyophilizing the solution obtained in (d);
  - (f) suspending the lyophilized material in a deproteinizing solution;
  - (g) centrifugating at 30,000 x g the solution obtained in (f) and separating the supernatant with addition of ethanol;
  - (h) centrifugating the supernatant of step (g) at 20,000 x g to obtain the polysaccharide; and
  - (i) washing the precipitated polysaccharide with absolute ethanol, dehydrating in vacuo and suspending it in sterile H<sub>2</sub>O.

16. (New) A method according to claim 15, in which the antibodies are IgG and IgM.

17. (New) A method according to claim 15 in which the virulent staphylococcal strain is a strain of coagulase negative or positive species.

18. (New) A method according to claim 17, in which said species is *Staphylococcus epidermidis* or *Staphylococcus aureus*.

19. (New) A method according to claim 17, in which the virulent staphylococcal strain is DSMZ No. 11942.

20. (New) A method according to claim 15, which the antibodies are reacted with the polysaccharide by ELISA, gel immuno-precipitation, immuno-diffusion, contro-immunoelectrophoresis, radioimmunologic assay or complement fixation.

21. (New) A process for preparing a polysaccharide from *Staphylococcus* cultures which comprises:

- (a) culturing a virulent staphylococcal strain in modified HHW medium for a period of 4-6 days;
  - (b) homogenizing the bacterial cells in a physiological buffer;
  - (c) centrifugating at 13,000 x g for 15 minutes and separating the surnatants;
  - (d) desalting by dialysis the surnatant using membranes with a cut-off of 12 kDa;
  - (e) freezing and lyophilizing the solution obtained in (d);
  - (f) suspending the lyophilized material in a deproteinizing solution;
  - (g) centrifugating at 30,000 x g the solution obtained in (f) and separating the supernatant with addition of ethanol;
  - (h) centrifugating the surnatant of step (g) at 20,000xg to obtain the polysaccharide;
- and

(i) washing the precipitated polysaccharide with absolute ethanol, dehydrating in vacuo and suspending it in sterile H<sub>2</sub>O.

22. (New) A polysaccharide produced by the process of claim 21.

23. (New) A kit for use in a method according to claim 15 containing the polysaccharide, the antibodies and the detection reagents in containers in combination with vehicles, excipients, additives, preservatives or stabilizers.

24. (New) A kit according to claim 23, further including microtiter strips presensitized with the antigen together with positive and negative control sera.

25. (New) The staphylococcal strain deposited at DSMZ under deposit No. 11942.